

REMARKS

This application has been carefully reviewed in light of the Office Action dated February 15, 2011. Claims 23 to 26 are now pending in the application, with all of the previously presented claims (Claims 1, 5, 7 to 9, 11 to 13 and 15 to 22) having been canceled. Claim 23 is now the only independent claim in the application. Reconsideration and further examination are respectfully requested.

Claims 1 5, 7 to 9, 11 to 13 and 15 to 22 were rejected under 35 U.S.C. § 112, first paragraph, based on an allegedly lack of support in the originally filed specification for "half value width for the diffraction intensity at 2θ of the main peak of the X-ray diffraction chart of the particles of the solid state alloy is 1.0° or more". Without conceding the correctness of the rejection, inasmuch as the rejected claims have been cancelled and the foregoing features have not been included in the currently pending claims, the rejection is believed to be obviated. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1, 5, 7, 8, 13, 15 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,235,427 (Idota) in view of U.S. Patent No. 6,322,926 (Kasashima), and Claims 9, 12 and 12 were rejected under 35 U.S.C. § 103(a) over Idota and Kasashima and further in view of U.S. Publication No. 2002/0146623 (Suzuki), and Claim 19 was rejected under § 103(a) over Idota in view of Kasashima and further in view of WO 2001/41249 (Nakanishi). Alternatively, Claims 1, 5, 7, 8, 13, 15 to 18 and 20 to 22 were rejected under § 103(a) over Idota in view of U.S. Publication No. 2003/0157407 (Kosuzu), Claims 9, 11 and 12 were rejected over Idota in view of Kosuzu and Suzuki, and Claim 19 was rejected over Idota and Kosuzu and Nakanishi. Inasmuch as the rejected claims have been cancelled, the rejections are believed to be obviated. Nonetheless, the

newly-added claims are believed to be allowable over the art of record for at least the following reasons.

Newly-added independent Claim 23 includes the feature of “atomic ratios of element A and element E in Si-A-E is lower than atomic ratio of silicon, and the atomic ratio of the element A is higher than the atomic ratio of the element E”.

Of alloys disclosed in Idota, the alloys that are disclosed to such an extent that it has similar atoms as defined in the present invention and atomic ratio can be arrived at are Si-Ag-Sn (60:30:10) (column 24) and Si-Ag-Sn (20:70:10) (column 29) as pointed in the Office Action. Note that the ratio is weight ratio. To replace a weight ratio with an atomic ratio, one needs to divide with atomic weight. Since atomic weight of Si is 28.09, atomic weight of Ag is 107.9, and atomic weight of Sn is 118.7, atomic ratio of the alloy disclosed in column 24 is approximately Si:Ag:Sn=2136:278:84, and atomic ratio of the alloy disclosed in column 29 is Si:Ag:Sn=712:649:84. In both cases, the number of atoms of Ag is larger than that of Sn. Ag corresponds to E and Sn corresponds to A in the present invention, respectively. Accordingly, Idota discloses only the Si-A-E alloy in which atomic ratio of the first element A is lower than atomic ratio of the second element E. Therefore, Idota neither discloses nor suggests the feature of the present invention “the atomic ratio of the element A is higher than the atomic ratio of the element E”.

Note that regarding the feature of the present invention “the alloy contains a pure metal or a solid solution including an element selected from the group consisting of the first element A and the second element B; and the particles of alloy has a structure in which a microcrystal or amorphous of the pure metal or the solid solution including an element selected from the group consisting of the first element A and the second element E is dispersed in a microcrystalline silicon or an amorphous silicon, and the particles of alloy

contains an eutectic including at least two elements selected from the group consisting of the first element A and the second element E”, whether the feature is satisfied depends on a production method, not directly depends on composition. The production method of Idota seems to be not clear, and therefore the feature is not discussed at this time.

Accordingly, Idota is not seen to teach the features of Claim 23.

Kasashima, Suzuki, Nakanishi, and Kosuzu have been studied, but none of those references are seen to teach anything that either alone or in any permissible combination, would have resulted in the foregoing features of Claim 23.

In view of the foregoing amendments and remarks, Claims 23 to 26 are believed to be allowable over the cited art.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant’s undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

/Edward Kmett/
Edward A. Kmett
Attorney for Applicant
Registration No. 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
1290 Avenue of the Americas
New York, New York 10104-3800
Facsimile: (212) 218-2200